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## APPENDIX L ITS Funding Oppor- tunities in Orange County

## LOCALLY AND REGIONALLY GENERATED

### MEASURE M

Measure M, a one-half cent local tax was passed by Orange County voters in November 1990. This sales tax is expected to generate \$3.1 billion over its 20 year lifetime. The revenue generated by this source is administered by OCTA. Funding is distributed into four categories:

- 43% to Freeway Projects
- 25% to Transit Projects
- 21% to Local Streets and Roads Projects and
- 11% to Regional Streets and Roads Projects.

These expenditure categories are further broken down into seven specific funds. Elements of IVHS are technically eligible for several Measure M Programs, including Superstreets, Signal Improvement and TDM/TSM. Additionally, the funding of IVHS and signal pre-emption projects with Measure M funds has been preliminarily approved by the OCTA Citizen's Oversight Committee and is anticipated to receive formal approval.

Clearly, Measure M funds are an ongoing, available source for funding S. This year provides a critical opportunity to define IVHS's place within the Measure M Program schemes for the next four years.

However, the overall role of Measure M funds in the implementation of IVHS is undefined. If this source is to become truly viable, more guidance within the Combined Transportation Funding programs is needed. As stated above, OCTA will be evaluating IVHS eligibility criteria this year. As Measure M is the most significant local source of transportation funding, it is necessarily competitive. For this fund to play a significant role in IVHS development, consensus regarding its use for this purpose will be indispensable.

### AB 2766 DISCRETIONARY FUNDS/TRANSPORTATION CONTROL MEASURE PROGRAM

In 1990, the California Legislature passed a motor vehicle registration fee increase (Sher-AB 2766), to be assessed to drivers in the South Coast Air Basin to provide funding for mobile source air quality mitigation programs within that area. Beginning April 1991, an add-on fee of \$2.00 per vehicle was assessed annually, with the fee being increased to \$4.00 in 1992. 40% of this revenue is allocated to the South Coast Air Quality Management District (SCAQMD), 30% to local governments on a per capita basis, and the remaining 30% toward a "discretionary fund." Any type of project, whether sponsored by government or by the private sector, having some direct connection with air quality would be able to compete for the revenues within this discretionary fund.

As an indication of the revenue expected to be generated, it is estimated that with the \$4.00 per vehicle fee, Orange County vehicle registration alone will generate over \$1.3 million for FY1993-94 towards the discretionary fund. Funds will be divided, per legislative formula, to fund both regional and local projects.

With the direct relationship between the traffic signal improvements and air quality, there should be a strong case for pursuing the discretionary element of these funds. There is also a possibility that authorization will be given to local agencies to increase these fees. Consideration may also be given to establishing an annual fee dedicated to supporting continuing operation and maintenance of signal systems.

To summarize, these funds could be used for implementation of the IVHS Programs, especially where a direct benefit to air quality is apparent. Further, given the continuing nature of the funds, opportunities may exist for finding of a portion of the continuing operations costs. However, the funding levels are not large, given the likely demands. Also, a clear tie to air quality improvement (ideally carbon monoxide emissions) must be made.

## **TRANSIT-RELATED FUNDS**

Several sources fund OCTA transit services, including the Local Transportation Fund (LTF-sales tax proceeds from 1/4 of the \$.065 per dollar collected from retail sales in Orange County), Measure M and federal grants. Although there are numerous programming needs to be met using these funds, there may be an opportunity to use a moderate amount of funds for transit-related IVHS components. The most current OCTA Short-Range Transit Plan also indicates that several federal grants (some dating back to 1985) should be reevaluated for continuation. Depending on the nature of the grant, there may also be a possibility to redirect unused grant funds to IVHS development. As an additional example, OCTA also receives state funding to implement a rideshare program for Orange County. To the extent that a component of IVHS (such as a transit related traveler information system) could be defined within the eligibility of the state's funding guidelines, such funds could provide partial funding for IVHS transit elements.

Transit-related funding provides some opportunity to pay for transit-related IVHS components. Further evaluation of specific sources would be required to fully determine this potential.

Funding for transit is limited. Utilization of any transit-related funds for IVHS would necessarily impact other priorities. Additionally, depending on the nature of the proposed use of funds, eligibility impediments may be encountered.

## **TRANSPORTATION CORRIDOR AGENCIES (TCAS)**

The TCAs have been established to construct e-I "toll road" facilities within Orange County. Funding for construction is to come from two primary sources, dedicated developer fees and tolls. After the facilities are constructed, they are to be turned over to Caltrans for operation and maintenance. The TCA projects are to be implemented over the next 7-8 years. While there is some uncertainty with

funding due to the slow down in development over the last several years, the projects are moving forward toward construction.

The TCA facilities will include complete traffic operations systems and HOV lanes. The toll collection system is also to emphasize automated collection using AVI technology. A number of IVHS components are planned for incorporation in the TCA facilities, and TCA funds will be directed toward this purpose.

At the same time, however, TCA funds cannot be used for infrastructure outside their roadways. Moreover, to ensure the inclusion of IVHS elements which are compatible with the rest of the County's IVHS network in the corridor projects, specific agreement on the type and extent of IVHS system architecture must be reached concurrently with design and construction timetables. Specific parameters for linking the corridors to the overall system architecture must also be defined and funded.

## **PRIVATIZATION PROJECTS (TOLL ROADS AND OTHER FACILITIES)**

There are two "privatization" toll roads being developed in Orange County, one parallel to SR91 and another extending SR57 south along the Santa Ana River to I-405. The developer of the SR91 project has received environmental clearance and project approvals and is currently negotiating financing. The developer of the SR57 is seeking equity participation to fund the requisite Environmental Impact Report (EIR) for the project.

As with the TCAS, there is an opportunity to incorporate certain IVHS components into the privatized facilities construction by directing funds dedicated to these project toward IVHS components. This would require early consultation with the project developers regarding common objectives concerning IVHS.

## **STATE FUNDING SOURCES**

### **STATE GAS TAX FUNDS**

The State of California levies a gas tax on each gallon of fuel sold. The gas tax is dedicated to transportation improvements, with Caltrans and local agencies as the recipients. The tax has recently been raised from nine cents per gallon to a programmed eighteen cents per gallon. Five cents of the new tax increment is in effect and an additional cent will be added each year until the full value is reached. The new tax increment includes special funding for TSM and Congestion Relief programs which are discussed below.

The gas tax fund has classically been the major source of funding for the California freeway system. It is used to "match" Federal funds for selected major projects. It is also a funding source for continuing operations and maintenance ("4 R program"). Prior to the recent increase, the funds were stretched to the limit in order to provide continuing operations and maintenance and to match federal funds.

State gas taxes go towards two funding sources of particular significance to the implementation of IVHS and traffic management programs: the Traffic System Management (TSM) program and the Flexible Congestion Relief (FCR) Program. The TSM program is wholly funded by state gas tax contributions, while FCR monies are derived from several sources. However, neither of these programs may be used to fund on-going fund operations and maintenance.

## TRAFFIC SYSTEMS MANAGEMENT (TSM) PROGRAM

The recently established TSM Program of the gas tax fund has already been of considerable use in supporting IVHS and traffic management system implementation. The TSM Program Guidelines that were established by the California Transportation Commission (CTC) in October 1989, define the appropriate uses of these funds to be "those projects designed to increase the number of person-trips which can be carried on the highway system without significantly increasing the design capacity of the highway system..." According to the CTC guidelines, eligible project types specifically include "traffic flow improvements such as computerized synchronization of traffic signals and intersection improvements on conventional arterial roads and TV surveillance, computerized message signs, and traffic operations centers on freeways;" also mentioned are "traffic metering systems, including meters on freeway on-ramps, freeway-to-free-way connectors, and freeway mainlines." Further, "demonstration projects to implement research and development in the field of traffic operations control systems" are also identified as an appropriate use.

Since its inception, TSM funds have been used for many traffic signal implementations and synchronization projects, several of which are located in Orange County. The FY1992-93 list of projects approved for funding included: \$1.2 million for ATMS projects in Santa Ana, including expansion of the existing signal system, \$5.3 million for TOS central and field equipment, including fiber optics trunk communications, and \$2.9 million for a TMS expansion in Anaheim in the SR91/La Palma Corridor. Many other cities have also been successful in securing signal improvements through the TSM program, especially those that have linked such projects with benefits to the freeway system. These are significant allocations for a fund which intends to make between \$50 million and \$100 million available for eligible projects per year.

The TSM application process is carried out on an annual basis. Traditionally, applications were submitted via Caltrans Districts during the month of August. Candidate projects were then evaluated and a priority list created for publication in December. The amount of funding available, and the ability of the agencies to meet deadlines for various stages of the design and construction of the project determined the number of projects actually funded from the list.

This process changed for FY1993-94. The passage of Senate Bill 1435 linked the TSM program with the Federal ISTEA of 1991 by using the TSM funds to match Surface Transportation Program (STP) and Congestion Management and Air Quality (CMAQ) program. STP and CMAQ funds are programmed through the Metropolitan Planning Organizations (MPO's) such as the OCTA. In order to ensure that the state TSM and regional STP and CMAQ programs are compatible, the TSM program for FY1993-94 was canceled and funding has been apportioned through the February 1993 call for Projects which consolidates the application of funding from several sources (see Section 2.5. 1). TSM funds through 1993-94 will most likely be exhausted in meeting mandated match

requirements for federal CMAQ and STP funds. Beginning in 1994-95, TSM projects will be drawn from project priorities that are developed by Caltrans District 12 in cooperation with the OCTA. Toward this end, District 12 is developing a three-year plan to target approximately \$18.7 million in TSM funds for fiscal years, 1994-95, 1995-96 and 1996-97. In the future, funding targets will be issued by OCTA for a four year period. Within those limits, OCTA will establish a project priority list with Caltrans.

TSM funds will continue to be a major source for IVHS deployment and their use as leverage for larger federal funds only adds to the funds utility. However, there is significant competition for TSM funds. They have also been the principal source for Caltrans operational elements such as Traffic Operations Centers and system improvements such as ramp metering, changeable message signs, closed circuit television and communications. Senate Bill 1435 added HOV lanes and park and ride facilities to the list of eligible projects. TSM funds may not be used for operations and maintenance activities. Because of the nature of the TSM Program, many IVHS elements will qualify under TSM, plus Federal ISTEA (CMAQ and STP) programs. It is therefore important that District 12 and OCTA work together closely to develop joint programming strategies covering all three statewide process to a District-based multiyear evaluation process, the need for well-coordinated implementation scheduling and financial planning is critical for the best utilization of this source. The following page indicates the criteria for TSM projects.

### **Project Evaluation Criteria for the California TSM Plan**

The Department shall use the following criteria in setting project priorities for the annual statewide TSM plan. The criteria are listed in order of general importance. The Department's evaluation of project priorities may give due consideration to the accuracy, reliability, and completeness of the information made available in the CMP's and project information reports.

- A. Need - Whether the project contributes to the implementation of an effective traffic management system.
- B. Time Savings - The effectiveness of the project in reducing travel time on the streets and highways system during peak hours. This effectiveness shall be measured in terms of the value of time saved per dollar expended (standard time values are provided in the attachment to Appendix A). The dollars expended shall include increases in annual operating and maintenance costs as well as the annualized capital costs of construction or acquisition.
- C. Person Trip Capacity - The effectiveness of the project in increasing the number of person trips that can be carried on the streets and highways system during peak hours. This effectiveness shall be measured in terms of the number of person-trips per dollar expended.
- D. Congestion Relief - The rapidity with which the project is expected to relieve traffic congestion.
- E. Conformance to the Congestion Management Program (CMP) - Whether the city or county in which the project is located has an approved CMP, is conforming to the CMP, and is fully cooperating with the implementation of TSM projects.

- F. Contribution to CMP Implementation - The degree to which the project contributes to the implementation of the area's CMP. This shall include consideration of its contribution to meeting the traffic established in the CMP, its contribution to mitigating regional transportation impacts of local land use decisions identified in the CMP, and its implementation of measures to reduce transportation-related air pollution emissions as included in the region's air quality plan.
- G. Advancement of Technology -The usefulness of the project in demonstrating the potential value of new methods or technology for traffic systems management.
- H. Financial Participation and Cost - The financial participation by a local agency in TSM projects in the area.

## **FLEXIBLE CONGESTION RELIEF (FCR) PROGRAM**

Flexible Congestion Relief funds are derived from a variety of state and federal sources which include state gas tax, rail bonds and ISTEA. These funds are collected in the State Highway account and allocated according to prescribed formulae for each county. FCR funding is estimated to be at the level of approximately \$300 million per year.

Eligible projects under the FCR program include new roadways, transit guideways, expansion of existing roadways and rail transit. The efficient addition of capacity to a corridor is the prime intention of these funds. Hence, traffic signal projects face significant competition for these funds and are at a disadvantage due to competition from major freeway projects. One significant advantage that the IVHS projects do have, however, is cost-effective capacity enhancement. For example, in Los Angeles County, some \$2.55 million of FCR funds have been allocated for the First phases of a multi-agency signal coordination project and Smart Corridor conceptual design for the northern San Gabriel Valley. Operations and Maintenance are not eligible for funding under the FCR program.

## **CALTRANS ITS RESEARCH**

Caltrans has allocated funding to conduct ITS research projects and has requested proposals from the various districts. District 12 and the University of California at Irvine led a multi-agency team and submitted a program for the region. The project, oriented toward a Test Bed for ITS, is receiving strong support and \$7 million or more is programmed for funding over a three year period. The project includes elements that can support expanded signal operations and interties to other agencies. The project will also provide some traffic system infrastructure in the test bed area. Funding in the FY1992-93 has been made available by Caltrans to local universities, and further funds are forthcoming under the ITS Corridors program (see Section 2.3.3.5) for equipment deployment. While research is the prime target, such test beds are useful to test and evaluate emerging technologies and establish their utility in traffic signal operations.

## **PETROLEUM VIOLATION ESCROW ACCOUNT (PVEA)**

Under existing Federal law, funds in the Petroleum Violation Escrow Account (PVEA) have been dispersed to the State by the Federal government and deposited in the Federal Transit Fund. PVEA monies have been used in the past to fund de pro to relieve traffic congestion, such as vanpool grants and loans. Existing state law, however, does not provide for optimized signal timing and corridor demonstration projects. Recently, specific bills have been formulated to require county transportation authorities, using funds allocated by the California Transportation Commission (CTC), to coordinate Smart Corridor demonstration projects on the state highway system. The bills would further require local transportation commissions to report on these projects to the Legislature.

In the 1992-93 legislative session, two such bills went before the State senate for the appropriation of over \$6 million of these PVEA to the CTC for allocation to these corridor demonstration projects. Unfortunately, competition for PVEA funds resulted in only \$1 million being allocated.

While future proposals could be formulated to provide some funds for implementing suitable corridor projects which might include IVHS elements, it should be recognized that PVEA funds are almost exhausted. This, combined with competition from other urban counties will limit PVEA funding availability for IVHS Programs in the County.

## **STATE AND LOCAL TRANSPORTATION PARTNERSHIP PROGRAM (SLTPP)**

This Caltrans program consists of funding local projects which are ready for construction with a minimum of review. Eligible projects are those which increase capacity, extend public transportation service to a new area, or rehabilitate existing facilities. As discussed with FCR projects, IVHS and traffic management projects can be shown to increase capacity. SLTPP funds are available only for actual construction costs, as well as State and local-shed materials. The funds do not cover preliminary and construction engineering. The maximum state share is 50%. In the first three years (cycles), the state match is 21.47%, 30.2% and 21.6% respectively. Projects nominated by local agencies are selected by- Caltrans annually. A one year application period begins on July 1. Project reimbursement proceeds after the final match ratio and list of eligible projects is published 13 months after the application deadline. \$200 million is available annually statewide.

## **STATE TRANSIT FUNDS**

OCTA receives transit operating and capital revenues from several state sources including the Local Transportation Fund (1/4 of the S.065 collected per dollar as sales tax in Orange County), State Transit Ass Fund (STAF); and various other sources (such as State Rideshare funds). Transit elements of RVHS would be eligible expenditures under these sources. Application of any portion of these funds to such use would, of course, impact other transit expenditures plans. Moreover, state fiscal conditions make these sources vulnerable to invasion to balance the state budget.



OCTA projects receive \$10.6 on per year in state ridcshare funds between 1993 and 1999. This source may contain some poten6al for application toward development of HOV programs as defined in the IVHS Master Plan.

## MEASURE M

Twenty-five percent (25%) of Measure M funds are devoted to transit, including rail and guideway development. The current SRTP allocates \$8.3 million toward transit for the 1993-1999 period. To the extent that IVHS components are transit-related, Measure M funds could be applied for these purposes.

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